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ABSTRACT OF THE INVENTION

The present invention relates to an optical fiber, having holes extending along a longitudinal direction thereof, and capable of acquiring an optical transmission characteristic closer to a design value as well as a method of fabricating the optical fiber. The fabrication method comprises the steps of: preparing an optical fiber preform having a specific structure, and a drawing the prepared optical fiber preform with specific conditions. In the preparing step, the prepared optical fiber has a plurality of preform holes intended to serve as the holes. In drawing step, the optical fiber preform is drawn by the a drawing tension of 0.78 (N) or more while pressurizing the inside of the through holes of the optical fiber preform. Thereby, hole deformations of the obtained optical fiber can be prevented, so that it is made possible to achieve an optical transmission characteristic closer to a design value.